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It is now often taken for granted that facts are *entia non grata*, for there exists a powerful argument (dubbed *the slingshot*), which is backed by such great names as Frege or Gödel or Davidson (and so could hardly be wrong), that discredits their existence. There indeed is such an argument, and it indeed is not wrong on the straightforward sense of *wrong*. However, in how far it knocks down any conception of facts is another story, a story which is anything but simple and perspicuous. In his book, Stephen Neale takes pains to excavate the origins of the argument and the presuppositions which it needs to be usable for the purpose of exorcising facts.

In the introduction of the book, Neale expresses his conviction that his analysis of the slingshot will not only compromise its usability for the purpose of discrediting facts, but also save representationalist conceptions of language and mind from the attacks of the anti-representationalist philosophers like Davidson and Rorty. „Representational philosophy," he claims, „survives the Davidson-Rorty onslaught because non-truth-functional logics and ontologies of facts, states of affairs, situations and propositions survive not only the *actual* arguments deployed against them, but also the most precise and powerful slingshot arguments that *can be* constructed." However, what he does take his analyses to show is that „the most precise and powerful slingshot arguments demonstrate conclusively that the logical and ontological theories originally targeted must satisfy non-trivial conditions if they are to avoid logical or ontological collapse." (P. 12)

The book starts with the discussion of the philosophy of Donald Davidson, who appears to have brought the slingshot argument to the current prominence within philosophical discussions. Here we encounter the first variant of the slingshot: Consider two sentences φ and ψ and a proper name d. Consider the definite descriptions 'the object x such that $(x = d$ and $\varphi)$' and 'the object x such that $(x = d$ and $\psi)$'. It seems to be clear that the former yields d if and only if it is the case that φ, whereas the latter yields d if and only if it is the case that ψ. Hence φ appears to be logically equivalent with $\iota x(x=d) = \iota x(x=d$ and $\varphi)$ and hence the two sentences appear to express the same fact; and similarly for ψ and $\iota x(x=d) = \iota x(x=d$ and $\psi)$. Now assume that φ and ψ are both true; then $\iota x(x=d$ and $\varphi)$ and $\iota x(x=d$ and $\psi)$ both denote the same object (namely d), hence $\iota x(x=d) = \iota x(x=d$ and $\psi)$ can be obtained from $\iota x(x=d) = \iota x(x=d$ and $\varphi)$ by mere replacement of a name of an object by another name of the same object, and hence they again appear to express the same fact. Hence if φ and ψ are true, each pair of subsequent sentences in the following sequence appears to be bound to express the same fact:

$$\varphi$$
$$\iota x(x=d) = \iota x(x=d \text{ and } \varphi)$$
$$\iota x(x=d) = \iota x(x=d \text{ and } \psi)$$
$$\psi$$

However, as φ and ψ were randomly chosen true sentences, all true sentences are bound to express one and the same *Great Fact*.

Neale offers a meticulous anatomization of the argument and concludes that „if a slingshot argument is to succeed in riding the landscape of facts (or at least ridding it of traditional ways of construing facts and making them philosophically useful), it will need to be

supplemented with a precise theory of descriptions" (p. 57). This makes him turn his attention to definite descriptions.

In the next two chapters, he therefore inspects the roots of modern semantics in Frege's writings and then especially the conception of definite descriptions within the writings of Russell. He explains what kinds of slingshotian considerations prevented Frege from accepting facts as denotations of sentences and made him see sentences rather as names of truth values. And he then explains Russell's theory of facts as complexes and the way Russell arrived at his theory of definite descriptions. Thereafter he turns to Gödel's criticism of Russell and offers a recapitulation of his version of the slingshot. If we assume that *Fa* and *Gb* are true and that *a* and *b* are different objects, then we again we appear to have a path from *Fa* to *Gb* in which every pair of subsequent sentences appears to express the same fact:

Fa
$a = \iota x(x{=}a \text{ and } Fx)$
$a = \iota x(x{=}a \text{ and } (x{\neq}b))$
$b = \iota x(x{=}b \text{ and } (x{\neq}a))$
$b = \iota x(x{=}b \text{ and } Gx)$
Gb

This leads Gödel to the conclusion which Neale himself outsketched earlier in connection with Davidson. „If a true sentence," summarizes Neale Gödel's standpoint, „stands for a fact, then in order to avoid the collapse of all facts into one, the friend of facts must give up either (a) an intuitive and straightforward Fregean Principle of Composition or (b) the idea that definite descriptions are expressions that purport to stand for things." (Pp. 124-5)

To clarify things further, Neale develops a conceptual framework which enables him to address the situation on a very general level, in terms of various kinds of 'substitutivities'. Let me rehearse this in my own, rather than Neale's terms. The situation can be seen in the following way: we want an equivalence between sentences, *expressing the same fact* or simply *SF*, such that logically equivalent sentences always express the same fact, i.e.

(1) $LE \subseteq SF$,

two sentences which differ from each other only in that a definite description in one of them is replaced by an equal definite description in the other also always express the same fact, i.e.

(2) $IDD \subseteq SF$,

but not every pair of *materially* equivalent sentences expresses the same fact, i.e.

(3) $ME \nsubseteq SF$.

However, (1) and (2) yield

$LE \cup IDD \subseteq SF$,

and the slingshot is devised to show that

$ME \subseteq LE \cup IDD$.

Hence (1), (2) and (3) turn out to be inconsistent.

Now if we had some neutral names for facts, we could construe *SF* as the relation of intersubstitutivity *salva veritate* within the contexts of the shape *... expresses the fact F*: we want such contexts to allow for interchange of logical equivalents and of equal definite descriptions, but not to be *extensional*, i.e. to allow for the interchange of material equivalents. In this form, the problem comes to appear as a subproblem of the problem of defining 'non-collapsing' non-extensional operators, and the classical slingshot appears to be generalizable to an argument against some non-extensional logics. In fact, as Neale points out, it has been put to this work by W.V. Quine, in the following shape (where C[...] represents a non-extensional context, in Quine's particular case a context of a belief report):

$\varphi \equiv \psi$
C[φ]
C[(a = ιx((x=a $\wedge$ φ) $\vee$ (x=b $\wedge$ $\neg\varphi$))]
ιx((x=a $\wedge$ φ) $\vee$ (x=b $\wedge$ $\neg\varphi$) = ιx((x=a $\wedge$ ψ) $\vee$ (x=b $\wedge$ $\neg\psi$)
C[(a = ιx((x=a $\wedge$ ψ) $\vee$ (x=b $\wedge$ $\neg\psi$))]
C[ψ]

This means that if we assume that logically equivalent sentences as well as equal definite descriptions are intersubstitutive within the context C[...] and if we assume that φ is materially equivalent with ψ, C[φ] must be materially equivalent with C[ψ] too. (Let me note that the allegedly fallacious version of this proof on page 172 of Neale's book is in fact identical with the correct one on the next page.)

Of course that all of this depends crucially on the assumption that the investigated non-extensional context allows for the interchange of equal definite descriptions, the plausibility of which is, in case of modal logics, at least dubious. Why could it be seen as more plausible in case of facts?

The reason, in case of facts, appears to be clear: expressions referring to things contribute to the facts expressed by sentences containing them by the things they refer to, so exchanging a name for another name of the same thing must not tamper with the fact expressed („rose by any other name would smell as sweet ..."). However, as Neale points out, as a reason for accepting the premises of the slingshot this line of thought possesses a substantial gap: definite descriptions, in their Russellian form, are no referring terms, hence intersubstitutivity of coreferential singular terms does *not* guarantee intersubstitutivity of equal definite descriptions (neither, for that matter, *vice versa*). All this indicates that however interesting the slingshot as an argument is, it usability as a fact-detonator is questionable.

To summarize, we can say that Neale's book provides a maximally thorough discussion of the point, the variations and the presuppositions of application, of the slingshot. What are the morals to be drawn of it? Surely that slingshot is an interesting piece of argumentation, which has bearing not only on theories of facts, but also on many other aspects of semantics. And especially that it is, without additional assumptions, not so lethal to facts as it is often taken to be.

Has Neale also managed to thereby undermine Rortyan anti-representationalism as he claims in the introduction? As a matter of fact I do not think so. I think that his results affects Rorty's anti-representationalism much less than Neale appears to think. In fact, already Davidson's disrespect to facts stems from two very distinct and largely independent sources which Neale does not clearly disentangle, the slingshot-considerations being only one of them. The other is the conviction that "the notion of ... fitting the facts, or of being true to the facts, adds nothing intelligible to the simple concept of being true" Davidson (*Inquiries into Truth and Interpretation*, Clarendon Press, Oxford, pp.193-194). (Hence while the first source leads to the conviction that we *cannot* have a coherent theory of facts, the second one implies

that such a theory would not be a theory worth its name, for it would offer only an illusion of an explanation.) Rorty, then, draws almost exclusively on the *second* source: his conviction being that facts are useless entities which have been invented only to grant our sentences something which they could represent. Hence independently of whether we agree with Rorty on this point or not, it has very little to do with the slingshot. (It should be also noted that neither Davidson, nor Rorty would probably protest against the claim that our thinking involves creating and manipulating various kinds of representations – their claim being that representing should not be seen as *the crucial thing* done by mind and language.)

Despite this, I think that Neale's extremely coherent and lucidly written book should be recommended not only to everybody who wants to understand the real nature of the slingshot, but also to everybody who is interested in logical analysis of language, formal semantics, and also metaphysics.